



# BIORETENTION AREAS

## STORMWATER TREATMENT MEASURE



### What is a stormwater treatment measure?

Stormwater treatment measures are engineered systems that remove pollutants from stormwater before it reaches a storm drain, creek, or the San Francisco Bay. These measures are required by the City of Burlingame through the Municipal Regional Stormwater Permit. As an owner of one of more of these measures, the City requires you to perform routine inspections and maintenance actions to ensure that your treatment measures are operating effectively.

*Be the solution to water pollution.*



*Only rain down the drain*



**Bioretention areas** (also called rain gardens) are shallow, recessed, and vegetated basins that collect and absorb runoff from surfaces such as rooftops, sidewalks, and streets. These landscapes contain soil of a specified biotreatment soil mix (BSM) that is designed to slow, retain, and filter stormwater runoff. When stormwater flows into a bioretention area, this prevents pollutants (such as vehicle fluids and trash) from flowing into a storm drain and into the San Francisco Bay.

**Some bioretention areas are designed as a vegetative curb extension** where stormwater runoff from the street is treated (see image on left).

### Components of a Bioretention Area

**When it rains**, the bioretention area acts as a reservoir that allows water to gradually soak into native soils below. Within a few days, no standing water will remain if the system is properly maintained.



**Rocks slow the flow of water** as it enters the area. This prevents soil erosion by dispersing the water evenly upon entry.

**Plants species** should be suitable to well-drained soil and occasional flooding.

### How do I find my stormwater treatment measure?

To find your stormwater treatment measure, look for a recessed landscape or garden with rocks. Bioretention areas should have a short curb opening that allows for rainwater to drain into the area.

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## MAINTENANCE ACTIVITIES

### *How do I maintain it?*

The primary maintenance requirement for bioretention areas is the regular inspection and repair or replacement of the control measure's components. It is recommended that certain maintenance tasks be conducted monthly, annually before the rainy season (i.e. October 1st), annually after the rainy season (i.e., April 30th), and after large storm events:

- **Inspect bioretention surface area, inlets, and outlets** and remove any obstructions and trash.
- **Inspect bioretention area for standing water.** If standing water does not drain within 2-3 days, remove the surface biotreatment soil and plants; replace with approved biotreatment soil and replant vegetation. If mosquito larvae are observed, contact the San Mateo County Mosquito Abatement District at 650-344-8592.
- **Prune and weed the bioretention area.** Remove and replace any dead plants.
- **Inspect inlets for channels, exposure of soils, or other evidence of erosion.** Clear any obstructions and remove any accumulation of sediment.
- **Do not use pesticides or other chemical applications** for any reason including treating diseased plants, controlling weeds, or removing unwanted growth.
- **Check the irrigation system** to ensure that plants are receiving the correct amount of water. Repair or replace any improperly functioning equipment.
- **Inspect the energy dissipater** (e.g. cobble rocks) at the inlet to ensure it is functioning adequately, and that there is no scour of the surface mulch. Remove any accumulation of sediment.
- **Inspect and replace wood mulch**, if needed. It is recommended that 2 to 3 inches of composted arbor mulch be applied once a year. Mulch should be added when erosion is evident or when the bioretention area begins to look unattractive.

### *Annual self-certification*

Every year the Stormwater Program will send you a maintenance verification checklist for you to complete, sign, and return to the City. This form is used to verify that necessary maintenance has been completed for your treatment device.

Failure to conduct needed maintenance on all of your stormwater treatment measures may initiate an enforcement investigation or a follow-up inspection.

### *What do I need to do?*

**Step 1:** Locate all of your stormwater treatment measures.

**Step 2:** Inspect and maintain your stormwater treatment measures.

**Step 3:** Take photos of your stormwater treatment measures.

**Step 4:** Submit your completed maintenance verification checklist and photos to the City.



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